



**PROCEEDINGS OF THE TENTH ANNUAL WORKSHOP ON
SEA TURTLE BIOLOGY AND CONSERVATION**

**20-24 February 1990
Hilton Head, South Carolina**

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AUGUST 1990

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SEA TURTLES AND SATELLITE TAGS: MOVEMENTS AND DIVE PATTERNS

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The collection of long-term, detailed information on sea turtles via satellite telemetry is a relatively new methodology. The use of satellite tags and their attachment to research animals has evolved from the trailing of a cylindrical transmitter to a compact backpack, fibreglassed to the carapace of the turtle. Satellite tags offer a cost effective means of obtaining information on sea turtles for up to 9 months. After tagging a turtle, data can be accessed at home or at the office using a computer and a telephone modem, or it can be accessed by mail if you care to wait that long.

Objectives of this ongoing study are to 1) explain the movement and dive patterns of sea turtles in relation to ocean currents and temperatures, 2) develop a biological model to make these patterns more predictable, and 3) explain the interactions between sea turtles and offshore oil and gas structures.

Three loggerheads are presently being tracked in the Gulf of Mexico and range in straight length and weight from 56-93 cm and 28-98 kg, respectively. Data is also being collected on the movement of one Kemp's ridley (51 cm, 20 kg) off the east coast of Florida.

A cursory view of the data suggests that these loggerhead turtles 1) spend time in association with oil and gas structures and 2) have a home range which may encompass 30 to 100 sq miles. Dive times appear to vary by day, night and season. Movement of the Kemp's ridley in the Atlantic appears to be in response to water temperature and ocean currents. It should be stressed that all data are preliminary and more information is needed on these turtles, as well as data from additional turtles to provide information for our biological model.